GenCore version 5.1.3

OM protein - protein search, using sw model

Run on: March 14, 2003, 05:19:53 ; Search time 29.9551 Seconds
(without alignments)
827.996 Million cell updates/sec

Title: US-09-698-781-3
Perfect score: 1436
Sequence: 1 MKQILHPALETTAMTLFPVL.....KHQLVRDSCKASCNCSNSIY 258

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283224 seqs, 96134422 residues

Total number of hits satisfying chosen parameters: 283224

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_73:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1371	95.5	245	2	S68691	neutrophil granule
2	988	68.8	243	2	B33329	cysteine-rich secr
3	852	59.3	243	2	JE0204	testicular protein
4	830	57.8	243	2	A33329	testis-specific pr
5	766.5	53.4	244	2	A49202	cysteine-rich secr
6	755.5	52.6	246	2	A24609	acidic epididymal
7	617.5	43.0	241	2	B49202	cysteine-rich secr
8	529.5	36.9	249	2	S68684	cysteine-rich secr
9	373.5	26.0	178	2	S68681	cysteine-rich secr
10	328	22.8	266	2	JC5308	testis-specific, v
11	322.5	22.5	219	2	JC4131	glioma pathogenesi
12	269	18.7	202	2	G44583	venom allergen ant
13	265	18.5	202	2	H44583	venom allergen ant
14	259	18.0	227	2	A31085	antigen 5-2 precur
15	257.5	17.9	211	2	B58853	venom allergen Sol
16	252.5	17.6	207	2	T22432	hypothetical prote
17	251	17.5	312	2	T16415	hypothetical prote
18	250.5	17.4	204	2	A44583	venom allergen ant
19	250.5	17.4	205	2	D44583	venom allergen ant
20	250.5	17.4	213	2	B31085	antigen 5-3 precur
21	247.5	17.2	207	2	T22438	hypothetical prote
22	245.5	17.1	204	2	B44583	venom allergen ant
23	244.5	17.0	425	2	C89753	protein F11C7.3 [i
24	243.5	17.0	204	2	B37329	antigen 5 - easter
25	243.5	17.0	208	2	T19852	hypothetical prote
26	241.5	16.8	204	2	C44583	venom allergen ant
27	240.5	16.7	206	2	E44583	venom allergen ant
28	240.5	16.7	208	2	T20661	hypothetical prote
29	239.5	16.7	246	2	T24493	hypothetical prote
30	234.5	16.3	209	2	T19848	hypothetical prote
31	234	16.3	212	2	B37330	venom allergen III
32	228.5	15.9	164	2	S52626	pathogenesis-relat
33	227.5	15.8	164	2	S39474	pathogenesis-relat
34	227.5	15.8	207	2	T22436	hypothetical prote
35	226.5	15.8	211	2	T19859	hypothetical prote
36	224.5	15.6	164	2	T04299	pathogenesis-relat
37	224	15.6	207	2	T31959	hypothetical prote
38	223.5	15.6	164	2	S37166	pathogenesis-relat
39	222	15.5	205	2	A37329	antigen 5 - paper
40	220.5	15.4	164	2	S52627	pathogenesis-relat
41	218	15.2	205	2	F44583	venom allergen ant
42	217	15.1	212	2	T22437	hypothetical prote
43	214	14.9	177	2	T08126	pathogenesis-relat
44	211.5	14.7	205	2	T48294	pathogenesis relat
45	210	14.6	175	2	S43894	pathogenesis-relat

ALIGNMENTS

RESULT 1
S68691
neutrophil granules matrix glycoprotein SGP28 precursor - human
C;Species: Homo sapiens (man)
C;Date: 15-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 17-Nov-2000
C;Accession: S68691; S74313; S68683
R;Kjeldsen, L.; Cowland, J.B.; Johnsen, A.H.; Borregaard, N.
FEBS Lett. 380, 246-250, 1996
A;Title: SGP28, a novel matrix glycoprotein in specific granules of human neutrophil
A;Reference number: S68691; MUID:96186934; PMID:8601434
A;Accession: S68691
A;Molecule type: mRNA
A;Residues: 1-245 <KJE>
A;Cross-references: EMBL:X94323; NID:g1213612; PIDN:CAA63984.1; PID:g1213613
A;Accession: S74313
A;Molecule type: protein
A;Residues: 33-83;96-143;165-217;221-226 <KJL>
R;Kraetzschmar, J.; Haendler, B.; Eberspaecher, U.; Roosterman, D.; Donner, P.; Schl
Eur. J. Biochem. 236, 827-836, 1996
A;Title: The human cysteine-rich secretory protein (CRISP) family. Primary structure
A;Reference number: S68681; MUID:96270732; PMID:8665901
A;Accession: S68683
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-105,'S',107-245 <KRA>
A;Cross-references: EMBL:X95240; NID:g1262818; PIDN:CAA64527.1; PID:g1262819
C;Genetics:
A;Gene: SGP28
C;Superfamily: cysteine-rich secretory protein 1
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-245/Product: neutrophil granules matrix glycoprotein SGP28 #status predicted <M

Query Match 95.5%; Score 1371; DB 2; Length 245;
Best Local Similarity 100.0%; Pred. No. 1.7e-102;
Matches 245; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      14 MTLFPVLLFLVAGLLPSFPANEDKDPAFTALLTTQTQVQREIVNKHNELRRAVSPPARNM 73
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MTLFPVLLFLVAGLLPSFPANEDKDPAFTALLTTQTQVQREIVNKHNELRRAVSPPARNM 60

Qy      74 LKMEWNKEAAANAQKWANQCNYRHSNPKDRMTSLKCGENLYMSSAPSSWSQAIQSWFDEY 133
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 LKMEWNKEAAANAQKWANQCNYRHSNPKDRMTSLKCGENLYMSSAPSSWSQAIQSWFDEY 120

Qy     134 NDFDFGVGPKTPNAVVGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYCPAGNWANR 193
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     121 NDFDFGVGPKTPNAVVGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYCPAGNWANR 180

Qy     194 LYVPYEQGAPCASCPDNCDDGLCTNGCKYEDLYSNCKSLKLTLTCKHQLVRDSCKASCNC 253
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     181 LYVPYEQGAPCASCPDNCDDGLCTNGCKYEDLYSNCKSLKLTLTCKHQLVRDSCKASCNC 240
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Qy     254 SNSIY 258
           |||||
Db     241 SNSIY 245


RESULT 2
B33329
cysteine-rich secretory protein 2 type I precursor - human
N;Alternate names: testis-specific protein
C;Species: Homo sapiens (man)
C;Date: 09-Mar-1990 #sequence_revision 09-Mar-1990 #text_change 20-Jun-2000
C;Accession: B33329; S68682
R;Kasahara, M.; Gutknecht, J.; Brew, K.; Spurr, N.; Goodfellow, P.N.
Genomics 5, 527-534, 1989
A;Title: Cloning and mapping of a testis-specific gene with sequence similarity to a spe
A;Reference number: A33329; MUID:90129048; PMID:2613236
A;Accession: B33329
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-243 <KAS>
A;Cross-references: GB:M25532; NID:g339882; PIDN:AAA61220.1; PID:g339883
R;Kraetzschmar, J.; Haendler, B.; Eberspaecher, U.; Roosterman, D.; Donner, P.; Schleuni
Eur. J. Biochem. 236, 827-836, 1996
A;Title: The human cysteine-rich secretory protein (CRISP) family. Primary structure and
A;Reference number: S68681; MUID:96270732; PMID:8665901
A;Accession: S68682
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-243 <KRA>
A;Cross-references: EMBL:X95239; NID:g1262816; PIDN:CAA64526.1; PID:g1262817
C;Genetics:
A;Gene: GDB:TPX1
A;Cross-references: GDB:120760; OMIM:187430
A;Map position: 6p21-6qter
C;Superfamily: cysteine-rich secretory protein 1
F;1-20/Domain: signal sequence #status predicted <SIG>
F;21-243/Product: cysteine-rich secretory protein 2 type I #status predicted <MAT>

  Query Match             68.8%;  Score 988;  DB 2;  Length 243;
  Best Local Similarity   71.8%;  Pred. No. 7.6e-72;
  Matches  176;  Conservative   25;  Mismatches   42;  Indels    2;  Gaps    2;

Qy      14 MTLFPVLLFLVAGLLPSFPANEDKDPAFTALLTTQTQVQREIVNKHNELRRAVSPPARNM 73
           | | || ||||  |||| || | ||||||||||||| ||||||||||||||:|||||| ||
Db       1 MALLPV-LFLVTVLLPSLPA-EGKDPAFTALLTTQLQVQREIVNKHNELRKAVSPPASNM 58

Qy      74 LKMEWNKEAAANAQKWANQCNYRHSNPKDRMTSLKCGENLYMSSAPSSWSQAIQSWFDEY 133
           |||||::|   |||:|||:|  :||:|:|| || :|||||||| |:||| |||||:||
Db      59 LKMEWSREVTTNAQRWANKCTLQHSDPEDRKTSTRCGENLYMSSDPTSWSSAIQSWYDEI 118

Qy     134 NDFDFGVGPKTPNAVVGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYCPAGNWANR 193
           || :|||||:|||||||||||:||||:| |||| ||||||  ||||||||||||||  ||
Db     119 LDFVYGVGPKSPNAVVGHYTQLVWYSTYQVGCGIAYCPNQDSLKYYYVCQYCPAGNNMNR 178

Qy     194 LYVPYEQGAPCASCPDNCDDGLCTNGCKYEDLYSNCKSLKLTLTCKHQLVRDSCKASCNC 253
           ||:|| ||| |||:|| ||||| |:|:|| ||| ||| |  |:|:|::: |||:| |
Db     179 KNTPYQQGTPCAGCPDDCDKGLCTNSCQYQDLLSNCDSLKNTAGCEHELLKEKCKATCLC 238

Qy     254 SNSIY 258
           | ||
Db     239 ENKIY 243


RESULT 3
JE0204
testicular protein Tpx-1 - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 21-Aug-1998 #sequence_revision 21-Aug-1998 #text_change 21-Jul-2000
C;Accession: JE0204
R;Maeda, T.; Sakashita, M.; Ohba, Y.; Nakanishi, Y.
Biochem. Biophys. Res. Commun. 248, 140-146, 1998
A;Title: Molecular cloning of the rat tpx-1 responsible for the interaction between sper
A;Reference number: JE0204; MUID:98340864; PMID:9675100
A;Accession: JE0204
A;Molecule type: mRNA
A;Residues: 1-243 <MAE>
A;Cross-references: DDBJ:AB009662; NID:g3374579; PIDN:BAA32029.1; PID:g3374580
C;Comment: This protein functions as a cell adhesion protein for the association bet
C;Genetics:
A;Map position: 17
C;Superfamily: cysteine-rich secretory protein 1

  Query Match             59.3%;  Score 852;  DB 2;  Length 243;
  Best Local Similarity   61.6%;  Pred. No. 5.8e-61;
  Matches  151;  Conservative   31;  Mismatches   61;  Indels    2;  Gaps    2;

Qy      14 MTLFPVLLFLVAGLLPSFPANEDKDPAFTALLTTQTQVQREIVNKHNELRRAVSPPARNM 73
           | | |:||: | ||| | | ||| | | | | ||||||: ||||||| |||| |:
Db       1 MAWFQVMLFVFAVLLP-LPPTEGKDPDFATLTTNQIQVQREIIAKHNELRRQVSPPGSNI 59

Qy      74 LKMEWNKEAAANAQKWANQCNYRHSNPKDRMTSLKCGENLYMSSAPSSWSQAIQSWFDEY 133
           |||||| :|||||||||| |   ||: :|| ::|||||||||: |:||  ||||::|
Db      60 LKMEWNVQAAANAQKWANNCILEHSSTEDRKINIKCGENLYMSTDPTSWRTVIQSWYEEN 119

Qy     134 NDFDFGVGPKTPNAVVGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYCPAGNWANR 193
            :| |||| | ||: ||||||:|||||: |||| |||||  |||:||| ||| ||   :
Db     120 ENFVFGVGAK-PNSAVGHYTQLVWYSSFKVGCGVAYCPNQDTLKYFYVCHYCPMGNNVMK 178

Qy     194 LYVPYEQGAPCASCPDNCDDGLCTNGCKYEDLYSNCKSLKLTLTCKHQLVRDSCKASCNC 253
              || || ||||||:|||:||||| | :||| |||:||| :  |||:|::  |:|:| |
Db     179 KSTPYHQGTPCASCPNNCDNGLCTNSCDFEDLLSNCESLKSSAGCKHELLKAKCEATCLC 238

Qy     254 SNSIY 258
             : |:
Db     239 EDKIH 243


RESULT 4
A33329
testis-specific protein - mouse
C;Species: Mus musculus (house mouse)
C;Date: 09-Mar-1990 #sequence_revision 09-Mar-1990 #text_change 29-Sep-1999
C;Accession: A33329
R;Kasahara, M.; Gutknecht, J.; Brew, K.; Spurr, N.; Goodfellow, P.N.
Genomics 5, 527-534, 1989
A;Title: Cloning and mapping of a testis-specific gene with sequence similarity to a
A;Reference number: A33329; MUID:90129048; PMID:2613236
A;Accession: A33329
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-243 <KAS>
A;Cross-references: GB:M25533; NID:g202126; PIDN:AAA40472.1; PID:g202127
C;Superfamily: cysteine-rich secretory protein 1

  Query Match             57.8%;  Score 830;  DB 2;  Length 243;
  Best Local Similarity   59.6%;  Pred. No. 3.3e-59;
  Matches  146;  Conservative   39;  Mismatches   58;  Indels    2;  Gaps    2;

Qy      14 MTLFPVLLFLVAGLLPSFPANEDKDPAFTALLTTQTQVQREIVNKHNELRRAVSPPARNM 73
           |  | |:||: | || | |  | ||| ||:||| | ||||||||||||||:|:|   ::
Db       1 MAWFQVMLFVFALLLRS-PLTEGKDPDFTSLLTNQLQVQREIVNKHNELRRSVNPTGSDI 59

Qy      74 LKMEWNKEAAANAQKWANQCNYRHSNPKDRMTSLKCGENLYMSSAPSSWSQAIQSWFDEY 133
           |||||: :|  |||||||:|   ||:  ||  :::|||||||: |: ||  ||||::|
Db      60 LKMEWSIQATTNAQKWANKCILEHSSKDDRKINIRCGENLYMSTDPTLWSTVIQSWYNEN 119

Qy     134 NDFDFGVGPKTPNAVVGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYCPAGNWANR 193
            || :||| | ||: ||||||:|||||: :||| ||||||  |||:||| ||| ||   :
Db     120 EDFVYGVGAK-PNSAVGHYTQLVWYSSFKIGCGIAYCPNQDNLKYFYVCHYCPMGNNVMK 178

Qy     194 LYVPYEQGAPCASCPDNCDDGLCTNGCKYEDLYSNCKSLKLTLTCKHQLVRDSCKASCNC 253
              ||:|| ||||||:||::||||| | :||| |||:||| :  |||:|::  |:|:| |
Db     179 KSTPYQQGTPCASCPNNCENGLCTNSCDFEDLLSNCESLKTSAGCKHELLKTKCQATCLC 238

Qy     254 SNSIY 258
             : |:
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Db    239 EDKIH 243


RESULT 5
A49202
cysteine-rich secretory protein-1 - mouse
N;Alternate names: CRISP-1
C;Species: Mus musculus (house mouse)
C;Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 29-Sep-1999
C;Accession: A49202
R;Haendler, B.; Kratzschmar, J.; Theuring, F.; Schleuning, W.D.
Endocrinology 133, 192-198, 1993
A;Title: Transcripts for cysteine-rich secretory protein-1 (CRISP-1; DE/AEG) and the nov
A;Reference number: A49202; MUID:93307144; PMID:8319566
A;Accession: A49202
A;Status: preliminary
A;Molecule type: nucleic acid
A;Residues: 1-244 <HAE>
A;Cross-references: GB:L05559; NID:g309190; PIDN:AAA37460.1; PID:g309191
A;Experimental source: NMRI, epididymis, salivary gland
A;Note: sequence extracted from NCBI backbone (NCBIN:134675, NCBIP:134676)
C;Superfamily: cysteine-rich secretory protein 1

  Query Match             53.4%;  Score 766.5;  DB 2;  Length 244;
  Best Local Similarity   55.1%;  Pred. No. 4e-54;
  Matches  135;  Conservative   39;  Mismatches   70;  Indels    1;  Gaps    1;

Qy      14 MTLFPVLLFLVAGLLPSFPANEDKDPAFTALLTTQTQVQREIVNKHNELRRAVSPPARNM 73
           | |  || || | | ||   :  ::     | ||:  || |||:|||:||| |||   ::
Db       1 MALMLVLFFLAAVLPPSLLQDSSQENRLEKLSTTKMSVQEEIVSKHNQLRRMVSPSGSDL 60

Qy      74 LKMEWNKEAAANAQKWANQCNYRHSNPKDRMTSLKCGENLYMSSAPSSWSQAIQSWFDEY 133
           |||||| :|  |||:||::| : ||  : | |:|:|||||:|||  :||| ||| |::||
Db      61 LKMEWNYDAQVNAQQWADKCTFSHSPIELRTTNLRCGENLFMSSYLASWSSAIQGWYNEY 120

Qy     134 NDFDFGVGPKTPNAVVGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYCPAGNWANR 193
            |  : |||| |::||||||||||| |:: | || | || :  |:|||| ||| ||:  |
Db     121 KDLTYDVGPKQPDSVVGHYTQVVWNSTFQVACGVAECP-KNPLRYYYVCHYCPVGNYQGR 179

Qy     194 LYVPYEQGAPCASCPDNCDDGLCTNGCKYEDLYSNCKSLKLTLTCKHQLVRDSCKASCNC 253
           || ||  | |||||||:|:|||||| | :|| |:||| ||  |:|:|:|::  |||:| |
Db     180 LYTPYTAGEPCASCPDHCEDGLCTNSCGHEDKYTNCKYLKKMLSCEHELLKKGCKATCLC 239

Qy     254 SNSIY 258
              |:
Db     240 EGKIH 244


RESULT 6
A24609
acidic epididymal glycoprotein precursor - rat
N;Alternate names: sperm-coating glycoprotein
C;Species: Rattus norvegicus (Norway rat)
C;Date: 30-Jun-1988 #sequence_revision 30-Jun-1988 #text_change 29-Sep-1999
C;Accession: A40918; A24609
R;Charest, N.J.; Joseph, D.R.; Wilson, E.M.; French, F.S.
Mol. Endocrinol. 2, 999-1004, 1988
A;Title: Molecular cloning of complementary deoxyribonucleic acid for an androgen-regula
A;Reference number: A40918; MUID:89039913; PMID:2460753
A;Accession: A40918
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-246 <CHA>
A;Cross-references: GB:M31173; NID:g202772; PIDN:AAB59716.1; PID:g202773
R;Brooks, D.E.; Means, A.R.; Wright, E.J.; Singh, S.P.; Tiver, K.K.
Eur. J. Biochem. 161, 13-18, 1986
A;Title: Molecular cloning of the cDNA for androgen-dependent sperm-coating glycoprotein
A;Reference number: A24609; MUID:87053995; PMID:3780731
A;Accession: A24609
A;Molecule type: mRNA
A;Residues: 1-246 <BRO>
A;Cross-references: GB:X04643; NID:g56112; PIDN:CAA28304.1; PID:g56113
C;Superfamily: cysteine-rich secretory protein 1
C;Keywords: glycoprotein; sperm
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-246/Product: acidic epididymal glycoprotein #status predicted <MAT>

  Query Match             52.6%;  Score 755.5;  DB 2;  Length 246;
  Best Local Similarity   55.1%;  Pred. No. 3.1e-53;
  Matches  136;  Conservative   35;  Mismatches   73;  Indels    3;  Gaps    2;

Qy      14 MTLFPVLLFLVAGLLPSF--PANEDKDPAFTALLTTQTQVQREIVNKHNELRRAVSPPAR 71
           | |  ||||| | | ||      :: |     | ||:  || ||:||||:||| |||
Db       1 MALMLVLLFLAAVLPPSLLQDTTDEWDRDLENLSTTKLSVQEEIINKHNQLRRTVSPSGS 60

Qy      72 NMLKMEWNKEAAANAQKWANQCNYRHSNPKDRMTSLKCGENLYMSSAPSSWSQAIQSWFD 131
           ::|::||: :|  |||||||:| | ||  : | |:|||||||:|:: |:|||  || |:|
Db      61 DLLRVEWDHDAYVNAQKWANRCIYNHSPLQHRTTTLKCGENLFMANYPASWSSVIQDWYD 120

Qy     132 EYNDFDFGVGPKTPNAVVGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYCPAGNWA 191
           |  || || |||     |||||||||| |::|| || | ||:|  |||:||| ||| ||:
Db     121 ESLDFVFGFGPKKVGVKVGHYTQVVWNSTFLVACGVAECPDQP-LKYFYVCHYCPGGNYV 179

Qy     192 NRLYVPYEQGAPCASCPDNCDDGLCTNGCKYEDLYSNCKSLKLTLTCKHQLVRDSCKASC 251
           ||| || :| || ||| ||:|||||| |:||| ||||  ||  ::|   |::: |:|||
Db     180 GRLYSPYTEGEPCDSCPGNCEDGLCTNSCEYEDNYSNCGDLKKMVSCDDPLLKEGCRASC 239

Qy     252 NCSNSIY 258
           | : |:
Db     240 FCEDKIH 246


RESULT 7
B49202
cysteine-rich secretory protein-3 - mouse
N;Alternate names: CRISP-3
C;Species: Mus musculus (house mouse)
C;Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 29-Sep-1999
C;Accession: B49202
R;Haendler, B.; Kratzschmar, J.; Theuring, F.; Schleuning, W.D.
Endocrinology 133, 192-198, 1993
A;Title: Transcripts for cysteine-rich secretory protein-1 (CRISP-1; DE/AEG) and the
A;Reference number: A49202; MUID:93307144; PMID:8319566
A;Accession: B49202
A;Status: preliminary
A;Molecule type: nucleic acid
A;Residues: 1-241 <HAE>
A;Cross-references: GB:L05560; NID:g309192; PIDN:AAA37461.1; PID:g309193
A;Experimental source: NMRI, epididymis, salivary gland
A;Note: sequence extracted from NCBI backbone (NCBIN:134677, NCBIP:134678)
C;Superfamily: cysteine-rich secretory protein 1

  Query Match             43.0%;  Score 617.5;  DB 2;  Length 241;
  Best Local Similarity   48.4%;  Pred. No. 3.3e-42;
  Matches  118;  Conservative   40;  Mismatches   79;  Indels    7;  Gaps    3;

Qy      14 MTLFPVLLFLVAGLLPSFPANEDKDPAFTALLTTQTQVQREIVNKHNELRRAVSPPARNM 73
           | |  || || | | ||   :  :: :   | |::  || |||:|||:||| |||   ::
Db       1 MALMLVLFFLAAVLPPSLLQDNSQENSLEKLSTSKKSVQEEIVSKHNQLRRKVSPSGSDL 60

Qy      74 LKMEWNKEAAANAQKWANQCNYRHSNPKDRMTSLKCGENLYMSSAPSSWSQAIQSWFDEY 133
           | |||| :|  |||: |::| : ||  : | |:||||||:|||    ||  || |::|
Db      61 LNMEWNYDAQVNAQQRADKCTFSHSPIELRTTNLKCGENLFMSSYLVPWSSVIQGWYNES 120

Qy     134 NDFDFGVGPKTPNAVVGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYCP----AGN 189
            ·  ||||||   :||||:||||| |:  | || | || :  |:|:|||:|||    :|:
Db     121 KGLIFGVGPKQNVSVVGHHTQVVWKSNLQVACGVAECP-ENPLRYFYVCRYCPVLNYSGH 179

Qy     190 WANRLYVPYEQGAPCASCPDNCDDGLCTNGCKYEDLYSNCKSLKLTLTCKHQLVRDSCKA 249
           : :| |: |   |||||||| |:|||||  |:|:|:  ||  :|   |||  ::  | |
Db     180 YPSRPYLAYTARAPCASCPDRCEDGLCTKSCQYKDMSFWCK--RLEYVCKHPGLKKRCLA 237

Qy     250 SCNC 253
           :| |
Db     238 TCQC 241
```

```
RESULT 8
S68684
cysteine-rich secretory protein 1 precursor - human
C;Species: Homo sapiens (man)
C;Date: 15-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 20-Jun-2000
C;Accession: S68684
R;Kraetzschmar, J.; Haendler, B.; Eberspaecher, U.; Roosterman, D.; Donner, P.; Schleuni
Eur. J. Biochem. 236, 827-836, 1996
A;Title: The human cysteine-rich secretory protein (CRISP) family. Primary structure and
A;Reference number: S68681; MUID:96270732; PMID:8665901
A;Accession: S68684
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-249 <KRA>
A;Cross-references: EMBL:X95237; NID:g1262814; PIDN:CAA64524.1; PID:g1262815
C;Superfamily: cysteine-rich secretory protein 1
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-249/Product: cysteine-rich secretory protein 1 #status predicted <MAT>

  Query Match             36.9%;  Score 529.5;  DB 2;  Length 249;
  Best Local Similarity   45.5%;  Pred. No. 3.8e-35;
  Matches  111;  Conservative   26;  Mismatches  100;  Indels    7;  Gaps    5;

Qy      20 LLFLVAG--LLP--SFPANEDKDPAFTALLTTQTQVQREIVNKHNELRRAVSPPARNMLK 75
           ||||||   |||  |       :|  |  |:|    || |||| || ||| | ||| ||||
Db       6 LLFLVAAACLLPMLSMKKKSARD-QFNKLVTDLPNVQEEIVNIHNALRRRVVPPASNMLK 64

Qy      76 MEWNKEAAANAQKWANQCNYRHSNPKD-RMTSLKCGENLYMSSAPSSWSQAIQSWFDEYN 134
           | |::||| ||: ::  |:   ||| : |: :  ||||::|:| | |||  |  |: |
Db      65 MSWSEEAAQNARIFSKYCDMTESNPLERRLPNTFCGENMHMTSYPVSWSSVIGVWYSEST 124

Qy     135 DFDFGVGPKTPNAV-VGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYCPAGNWANR 193
           |  |    | : :   ||||:|| :|||:||  | |  |   :| ||| ||  ||
Db     125 SFKHGEWTTTDDDITTDHYTQIVWATSYLIGCAIASCRQQGSPRYLYVCHYCHEGNDPET 184

Qy     194 LYVPYEQGAPCASCPDNCDDGLCTNGCKYEDLYSNCKSLKLTLTCKHQLVRDSCKASCNC 253
             ||: | || :|| ||:| |||| | | | | :|      | | |      |||:| |
Db     185 KNEPYKTGVPCEACPSNCEDKLCTNPCIYYDEYFDCDIQVHYLGCNHSTTILFCKATCLC 244

Qy     254 SNSI 257
           |
Db     245 DTEI 248


RESULT 9
S68681
cysteine-rich secretory protein 1-delta precursor - human
C;Species: Homo sapiens (man)
C;Date: 15-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 20-Jun-2000
C;Accession: S68681; S74302
R;Kraetzschmar, J.; Haendler, B.; Eberspaecher, U.; Roosterman, D.; Donner, P.; Schleuni
Eur. J. Biochem. 236, 827-836, 1996
A;Title: The human cysteine-rich secretory protein (CRISP) family. Primary structure and
A;Reference number: S68681; MUID:96270732; PMID:8665901
A;Accession: S68681
A;Molecule type: mRNA
A;Residues: 1-178 <KRA>
A;Cross-references: EMBL:X95238; NID:g1262812; PIDN:CAA64525.1; PID:g1262813
A;Accession: S74302
A;Molecule type: protein
A;Residues: 22-41 <KRE>
C;Superfamily: cysteine-rich secretory protein 1
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-178/Product: cysteine-rich secretory protein 1-delta #status experimental <MAT>

  Query Match             26.0%;  Score 373.5;  DB 2;  Length 178;
  Best Local Similarity   47.1%;  Pred. No. 8.1e-23;
  Matches   81;  Conservative   21;  Mismatches   63;  Indels    7;  Gaps    5;

Qy      20 LLFLVAG--LLP--SFPANEDKDPAFTALLTTQTQVQREIVNKHNELRRAVSPPARNMLK 75
           ||||||   |||  |       :|  |  |:|    || |||| || ||| | ||| ||||
Db       6 LLFLVAAACLLPMLSMKKKSARD-QFNKLVTDLPNVQEEIVNIHNALRRRVVPPASNMLK 64

Qy      76 MEWNKEAAANAQKWANQCNYRHSNPKD-RMTSLKCGENLYMSSAPSSWSQAIQSWFDEYN 134
           | |::||| ||: ::  |:   ||| : |: :  ||||::|:| | |||  |  |: |
Db      65 MSWSEEAAQNARIFSKYCDMTESNPLERRLPNTFCGENMHMTSYPVSWSSVIGVWYSEST 124

Qy     135 DFDFGVGPKTPNAV-VGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYC 185
           |  |    | : :   ||||:|| :|||:||  | |  |   :| ||| ||
Db     125 SFKHGEWTTTDDDITTDHYTQIVWATSYLIGCAIASCRQQGSPRYLYVCHYC 176


RESULT 10
JC5308
testis-specific, vespid, and pathogenesis-related protein 1 precursor - human
C;Species: Homo sapiens (man)
C;Date: 01-May-1997 #sequence_revision 01-May-1997 #text_change 19-May-2000
C;Accession: JC5308; PC4311
R;Rich, T.; Chen, P.; Furman, F.; Huynh, N.; Israel, M.A.
Gene 180, 125-130, 1996
A;Title: RTVP-1, a novel human gene with sequence similarity to genes of diverse spe
A;Reference number: JC5308; MUID:97128816; PMID:8973356
A;Accession: JC5308
A;Molecule type: mRNA
A;Residues: 1-266 <RIC1>
A;Cross-references: EMBL:X91911; NID:g1030052; PIDN:CAA63005.1; PID:g1030053
A;Accession: PC4311
A;Molecule type: protein
A;Residues: 97-100;114-120;134-144 <RIC2>
A;Experimental source: brain tumor cell
C;Genetics:
A;Gene: rtvp-1
C;Superfamily: yellowjacket venom allergen antigen 5
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-266/Product: testis-specific, vespid, and pathogenesis-related protein 1 #statu
F;233-255/Domain: transmembrane #status predicted <TMM>

  Query Match             22.8%;  Score 328;  DB 2;  Length 266;
  Best Local Similarity   34.9%;  Pred. No. 5.3e-19;
  Matches   81;  Conservative   34;  Mismatches   71;  Indels   46;  Gaps   12;

Qy       9 LETTAMTLFPVLLFL-----VAGLLPSFPANEDKDPAFTALLTTQTQVQREIVNKHNELR 63
           :  |  |:  :: |:      | :||    |||                 :: |  ||: |
Db       1 MRVTLATIAWMVSFVSNYSHTANILPDI-ENED-------------FIKDCVRIHNKFR 45

Qy      64 RAVSPPARNMLKMEWNKEAAANAQKWANQCNYRHS---NPKDRM----TSLKCGENLYMS 116
           | | | :|| | |:   |  |: ||: | : |:    |  ::    ||| |||::
Db      46 SEVKPTASDMLYMTWDPALAQIAKAWASNCQFSHNTRLKPPHKLHPNFTSL--GENIWTG 103

Qy     117 SAP-SSWSQAIQSWFDEYNDFDFGVGPKTPNAVVGHYTQVVWYSSYLVGCGNAYCPNQKV 175
           | |  | | || :|:||  |:||    :    | ||||||||  || |||   :||  ||
Db     104 SVPIFSVSSAITNWYDEIQDYDFKT--RICKKVCGHYTQVVWADSYKVGCAVQFCP--KV 159

Qy     176 LKY-------YYVCQYCPAGNWANRLYVPYEQGAPCASCPDN--CDDGLCTN 218
             :       :::| | | ||:      ||::|| |::||:|  | | || |
Db     160 SGFDALSNGAHFICNYGPGGNYPT---WPYKRGATCSACPNNDKCLDNLCVN 208


RESULT 11
JC4131
glioma pathogenesis-related protein - human
C;Species: Homo sapiens (man)
C;Date: 02-Aug-1995 #sequence_revision 19-Oct-1995 #text_change 04-Mar-2000
C;Accession: JC4131
R;Murphy, E.V.; Zhang, Y.; Zhu, W.; Biggs, J.
Gene 159, 131-135, 1995
A;Title: The human glioma pathogenesis-related protein is structurally related to pla
A;Reference number: JC4131; MUID:95331646; PMID:7607567
A;Accession: JC4131
A;Molecule type: mRNA
A;Residues: 1-219 <MUR>
A;Cross-references: GB:U16307; NID:g1100927; PIDN:AAA82731.1; PID:g847722
A;Experimental source: brain tumor
C;Genetics:
A;Gene: GDB:GLIPR
```

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A;Cross-references: GDB:683195
C;Superfamily: yellowjacket venom allergen antigen 5
C;Keywords: brain

  Query Match             22.5%;  Score 322.5;  DB 2;  Length 219;
  Best Local Similarity   36.5%;  Pred. No. 1.2e-18;
  Matches   77;  Conservative   30;  Mismatches   63;  Indels   41;  Gaps   11;

Qy      25 AGLLPSFPANEDKDPAFTALLTTQTQVQREIVNKHNELRRAVSPPARNMLKMEWNKEAAA 84
           | :||    |||                ::  |  ||: |  | | | :|| | |:   |
Db      12 ANILPDI-ENED--------------FIKDCVRIHNKFRSEVKPTASDMLYMTWDPALAQ 56

Qy      85 NAQKWANQCNYRHS---NPKDRM----TSLKCGENLYMSSAP-SSWSQAIQSWFDEYNDF 136
             |: ||: | : |:    |  ::    |||  |||::  | |  | | || :|:||  |:
Db      57 IAKAWASNCQFSHNTRLKPPHKLHPNFTSL--GENIWTGSVPIFSVSSAITNWYDEIQDY 114

Qy     137 DFGVGPKTPNAVVGHYTQVVWYSSYLVGCGNAYCPNQKVLKY-------YYVCQYCPAGN 189
           :|    :    | ||||||||  || |||   :||  ||  :       :::| | | ||
Db     115 NFKT--RICKKVCGHYTQVVWADSYKVGCAVQFCP--KVSGFDALSNGAHFICNYGPGGN 170

Qy     190 WANRLYVPYEQGAPCASCPDN--CDDGLCTN 218
           :      ||::|| |::||:|  | | || |
Db     171 YPT---WPYKRGATCSACPNNDKCLDNLCVN 198


RESULT 12
G44583
venom allergen antigen Vesp c 5.01 - European hornet
C;Species: Vespa crabro (European hornet)
C;Date: 27-Jun-1994 #sequence_revision 27-Jun-1994 #text_change 11-Jan-2000
C;Accession: G44583; G44522
R;Hoffman, D.R.
J. Allergy Clin. Immunol. 92, 707-716, 1993
A;Title: Allergens in hymenoptera venom XXV: the amino acid sequences of antigen 5 molec
A;Reference number: A44583; MUID:94044316; PMID:8227862
A;Accession: G44583
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-202 <HOF>
C;Superfamily: yellowjacket venom allergen antigen 5

  Query Match             18.7%;  Score 269;  DB 2;  Length 202;
  Best Local Similarity   37.2%;  Pred. No. 2.1e-14;
  Matches   61;  Conservative   23;  Mismatches   60;  Indels   20;  Gaps    5;

Qy      45 LTTQTQVQREIVNKHNELRRAVS-----------PPARNMLKMEWNKEAAANAQKWANQ 92
           || |  :  ||: :||| |: |:            |||::|  : || | |  || ||||
Db      36 LTKQENL--EILKQHNEFRQKVARGLETRGNPGPQPPAKSMNTLVWNDELAQIAQVWANQ 93

Qy      93 CNYRHSNPKDRMTSLKCGENLYMSSAPS----SWSQAIQSWFDEYNDFDFGVGPKTPNAV 148
           ||| | | ::       |:|:   |  :    | |  :: | ||  |: :|  ||
Db      94 CNYGHDNCRN-SAKYSVGQNIAEGSTADNFGSVSNMVKMWEDEVKDYQYG-SPKNKLNK 151

Qy     149 VGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYCPAGNWAN 192
           ||||||:||  :  :|||:          ::| || | ||||  |
Db     152 VGHYTQMVWAKTKEIGCGSIKYIENGWHRHYLVCNYGPAGNVGN 195


RESULT 13
H44583
venom allergen antigen Vesp c 5.02 - European hornet
C;Species: Vespa crabro (European hornet)
C;Date: 27-Jun-1994 #sequence_revision 27-Jun-1994 #text_change 11-Jan-2000
C;Accession: H44583; H44522
R;Hoffman, D.R.
J. Allergy Clin. Immunol. 92, 707-716, 1993
A;Title: Allergens in hymenoptera venom XXV: the amino acid sequences of antigen 5 molec
A;Reference number: A44583; MUID:94044316; PMID:8227862
A;Accession: H44583
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-202 <HOF>
C;Superfamily: yellowjacket venom allergen antigen 5

  Query Match             18.5%;  Score 265;  DB 2;  Length 202;
  Best Local Similarity   36.6%;  Pred. No. 4.4e-14;
  Matches   60;  Conservative   24;  Mismatches   60;  Indels   20;  Gaps    5;

Qy      45 LTTQTQVQREIVNKHNELRRAVS-----------PPARNMLKMEWNKEAAANAQKWANQ 92
           || |  :  ||: :||| |: |:            |||::|  : || | |  || ||||
Db      36 LTKQENL--EILKQHNEFRQKVARGLETRGNPGPQPPAKSMNTLVWNDELAQIAQVWANQ 93

Qy      93 CNYRHSNPKDRMTSLKCGENLYMSSAPS----SWSQAIQSWFDEYNDFDFGVGPKTPNAV 148
           ||| | | ::       |:|:   |  :    | |  :: | ||  |: :|  ||
Db      94 CNYGHDNCRN-SAKYSVGQNIAEGSTSADNFVNVSNMVKMWEDEVKDYQYG-SPKNKLNK 151

Qy     149 VGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYCPAGNWAN 192
           ||||||:||  :  :|||:          ::| || | ||||  |
Db     152 VGHYTQMVWAKTKEIGCGSEDYIEDGWHRHYLVCNYGPAGNVGN 195


RESULT 14
A31085
antigen 5-2 precursor - bald-faced hornet
C;Species: Vespula maculata (bald-faced hornet)
C;Date: 31-Mar-1990 #sequence_revision 31-Mar-1990 #text_change 11-Jan-2000
C;Accession: A31085
R;Fang, K.S.Y.; Vitale, M.; Fehlner, P.; King, T.P.
Proc. Natl. Acad. Sci. U.S.A. 85, 895-899, 1988
A;Title: cDNA cloning and primary structure of a white-face hornet venom allergen, a
A;Reference number: A94213; MUID:88124947; PMID:3422469
A;Accession: A31085
A;Molecule type: mRNA
A;Residues: 1-227 <FAN>
A;Cross-references: GB:J03601; NID:g156714; PID:g156715
C;Superfamily: yellowjacket venom allergen antigen 5
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-227/Product: antigen 5-2 #status predicted <MAT>

  Query Match             18.0%;  Score 259;  DB 2;  Length 227;
  Best Local Similarity   34.6%;  Pred. No. 1.5e-13;
  Matches   55;  Conservative   31;  Mismatches   55;  Indels   18;  Gaps    4;

Qy      52 QREIVNKHNELRRAVS-----------PPARNMLKMEWNKEAAANAQKWANQCNYRHSN 99
           : ||: :||: |: |:            |||:||  : || | |  || |||||:: | :
Db      64 KNEILKRHNDFRQNVAKGLETRGKPGPQPPAKNMNVLVWNDELAKIAQTWANQCDFNHDD 123

Qy     100 PKDRMTSLKCGENLYMSSAPSSW----SQAIQSWFDEYNDFDFGVGPKTPN-AVVGHYTQ 154
            ::     : |:|: :||  ::     |: |: | ||  :|:: || :  |   ||||||
Db     124 CRN-TAKYQVGQNIAISSTTATQFDRPSKLIKQWEDEVTEFNYKVGLQNSNFRKVGHYTQ 182

Qy     155 VVWYSSYLVGCGNAYCPNQKVLKYYYVCQYCPAGNWANR 193
           :||  :  :|||:          :| || | | ||  |:
Db     183 MVWGKTKEIGCGSIKYIEDNWYTHYLVCNYGPGGNDFNQ 221


RESULT 15
B58853
venom allergen Sol r 3 - black imported fire ant
C;Species: Solenopsis richteri (black imported fire ant)
C;Date: 06-Nov-1998 #sequence_revision 06-Nov-1998 #text_change 11-Jan-2000
C;Accession: B58853
R;Hoffman, D.R.
J. Allergy Clin. Immunol. 100, 679-683, 1997
A;Title: Reactions to less common species of fire ants.
A;Reference number: A58853; MUID:98049167; PMID:9389299
A;Accession: B58853
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-211 <HOF>
C;Superfamily: yellowjacket venom allergen antigen 5
C;Keywords: venom

  Query Match             17.9%;  Score 257.5;  DB 2;  Length 211;
  Best Local Similarity   36.2%;  Pred. No. 1.8e-13;
  Matches   59;  Conservative   24;  Mismatches   57;  Indels   23;  Gaps    6;
```

```
Qy      49 TQVQRE-IVNKHNELRRAVS------------PPARNMLKMEWNKEAAANAQKWANQCNY 95
           |  ::: ||||||||||: |:            |||  |  : |: | |  ||:|||||  :
Db      39 TDAEKDAIVNKHNELRQRVASGKEMRGTNGPQPPAVKMPNLTWDPELATIAQRWANQCTF 98

Qy      96 RHSNPKDRMTSLKCGENLYMSSA----PSSWSQAIQSWFDEYNDFD---FGVGPKTPNAV 148
            |   :: :     |:|:  :|:     |: |  |  |::|  |||       |   | :
Db      99 EHDACRN-VERFAVGQNIAATSSSGKNKSTLSDMILLWYNEVKDFDNRWISSFPSDGNIL 157

Qy     149 --VGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYCPAGN 189
             ||||||:||  :  :|||          |:| || | ||||
Db     158 MHVGHYTQIVWAKTKKIGCGRIMFKEDNWNKHYLVCNYGPAGN 200


Search completed: March 14, 2003, 05:41:32
Job time : 29.9551 secs
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